

REFERENCES

- BOULENGER, G. A., 1885. *Catalogue of the lizards in the British Museum (Natural History)* 1. 2nd ed.; London.
- COGGER, H. G., 1962. Reptile studies in the Musgrave ranges. *Australian Natural History*, 14: 51-56.
- GLAUERT, L. 1961. *A Handbook of the lizards of Western Australia*. Handbook No. 6. Western Australian Naturalists' Club; Perth.
- KINGHORN, J. R., 1945. The Simpson Desert Expedition, 1939. Scientific Reports: No. 3—Biology, Reptiles and Amphibians. *Trans. Roy. Soc. South Australia*, 69: 3-9.
- LOVERIDGE, A., 1934. Australian reptiles in the Museum of Comparative Zoology, Cambridge, Massachusetts. *Bull. Mus. Comp. Zool.*, 77: 243-383.
- LOVERIDGE, A., 1938. On some reptiles and amphibians from the central region of Australia. *Trans. Roy. Soc. South Australia*, 62: 183-191.
- LUCAS, A. H. S., and C. Frost, 1895. Preliminary notice of certain new species of lizards from Central Australia. *Proc. Roy. Soc. Victoria*, 7: 264-269.
- LUCAS, A. H. S., and C. Frost, 1896. Reptilia. *The Horn Scientific Expedition to Central Australia*. II. Zoology, pp. 112-151. Dulau & Co.; London.
- MERTENS, R., 1942. Die Familie der Warane (Varanidae). *Abh. senckenb. naturf. Ges.* (Frankfurt a. M.), 462, 465, 466.
- MERTENS, R., 1958. Bemerkungen über die Warane Australiens. *Senck. biol.*, 39: 229-264.
- PIANKA, E. R., 1968. Notes on the biology of *Varanus eremius*. *W.A. Naturalist*, 11: 39-44.
- THOMPSON, D. F. and W. Hosmer, 1963. A preliminary account of the herpetology of the Great Sandy Desert of Central Western Australia. *Proc. Roy. Soc. Victoria*, 77: 217-237.
- WAITE, E. R., 1929. *The Reptiles and Amphibians of South Australia*. Handbooks of the Flora and Fauna of South Australia. British Science Guild. Government Printer; Adelaide (270 pp.).
- WERNER, F., 1909. "Reptilia exkl. Geckonidae und Seineidae". Michaelsen, W. und R. Hartmeyer. (1914), *Die Fauna Südwest-Australiens*. 4: 251-278. G. Fiseher: Jena.
- ZIETZ, F. R., 1915. Lacertilia from the north-western regions of South Australia. *Trans. Roy. Soc. of South Australia*, 39: 766-769.

OEDURA RETICULATA, A NEW VELVET GECKO FROM SOUTH-WEST WESTERN AUSTRALIA

By H. ROBERT BUSTARD, Research School of Biological Sciences, Australian National University, Canberra, A.C.T.

The geckonid genus *Oedura* occurs in all mainland States with its greatest radiation in Eastern Australia in the New South Wales-Queensland border region. The genus has been the subject of recent systematic study (Cogger, 1957; Bustard, 1966, 1967, and in press) and in the course of this work I found, in Museum collections, a number of specimens of an undescribed Western Aus-

tralian species formerly included in the taxon *Oedura robusta*. Apart from this supposed *robusta* material, *robusta* is only known from northern New South Wales and south Queensland. The demonstration that the Western Australian material belongs to a separate taxon has, therefore, clarified, what appeared to be an anomalous distribution.

Dr. G. M. Storr (pers. comm.) has kindly generalised the habitat of this species on the basis of the small number of individuals collected as "*Eucalyptus* woodland in the 10-30 inch rainfall zone (with maximum precipitation in winter)". Dr. Storr collected one specimen on a wandoo flat (*E. wandoo*). Mr. L. A. Smith collected a specimen under bark about four feet from the ground in sandplain country vegetated with salmon gum (*E. salmonophloia*) and gimlet (*E. salubris*). Storr (pers. comm.) says of the species, "it is clearly the rarest gecko in the south-west."

I am grateful to: Dr. Storr (Curator of Reptiles, Western Australian Museum) for loan of specimens, information about the habitat of the species and for other kindnesses; Miss A. G. C. Grandison (Curator of Reptiles, British Museum (Natural History) for loan of type material of *Oedura robusta* Boulenger and for information on material in her care); Mr. J. McNally (Director, National Museum of Victoria); Mr. J. Woods (formerly Director, Queensland Museum) and Mr. H. G. Cogger (Curator of Reptiles, Australian Museum) for loan of specimens.

Oedura reticulata sp. nov.

Holotype—R 23350 in Western Australian Museum, collected by Mr. L. A. Smith on 28 October 1964 at 9 miles N. of Kalanning, Western Australia, in Lat. 33 deg. 22 min. S., Long. 117 deg. 32 min. E. Adult female.

Paratypes—All localities mentioned are in south-west Western Australia: W.A.M.*Dedari (R 6380), Kulin (R 4407), Northam (R 5932), Spencer's Brook (R 6580), Dryandra (R 12790), 41 mi. E. of Southern Cross (R 21989), 7 mi. S.E. of Bindoon Hill (R 15296), 15 mi. S. of Holt Rock (R 26450), 4 mi. E. of Holt Rock (R 29379), 8 mi. W. of Wandering (R 29085), Coolgardie district (Q.M. 13858-9; N.M.V. D 1689 and D 2450).

Diagnosis.—Distinguished from all other *Oedura* by the following combination of characters—dorsal scales markedly smaller than the ventrals, by a single postanal tubercle.

Description of Holotype: Head moderate, greatly depressed, oval, eye large, snout moderately long, ear opening oblique. Body depressed. Limbs moderate. Digits dilated, less broad than the apical dilation which is moderate, rounded, broader than long. Three or four pairs of broad infradigital plates under the third and fourth toes of hind feet, followed by one to two undivided lamellae. Head covered with hexagonal or rounded, very small, flattened scales, interorbitals number about thirty-three, rostral four-sided, about twice as broad as high, with medium cleft above, nostril pierced between the rostral, first labial and three nasals. The two upper nasals large, nasal adjacent to the labial small. The anterior nasal greatly elongated transversely, its depth contained at least twice in its breadth, separated from its counterpart on the opposite side by two small scales; eleven upper and eight or nine lower labials, mental triangular. First two infralabials deep, the first separated by a moderate octagonal scale below the mental. Back covered with very small juxtaposed flat hexagonal or rounded granular scales slightly larger than those

* W.A.M. Western Australian Museum, Q.M.—Queensland Museum, N.M.V.—National Museum of Victoria.



Fig. 1.—Holotype of *Oedura reticulata*.

on the head and arranged in a regular transverse series; abdominal scales juxtaposed, flat, hexagonal, much larger than the dorsal scales. Mid-body scale row count about 100. Tail original, long, depressed, thick, the end tapering to a point, covered with square or slightly elongated scales arranged in regular rows. Postanal tubercle single. Dorsal coloration (in spirits): the central area of the dorsum fawn with indistinct reticulate markings. A dark brown line passes through the eye and broadens behind the armpit to cover the whole of the flanks and sides of the tail; lower surfaces dirty white.

Dimensions: Absolute dimensions in mm are followed by percentage of snout-vent length in brackets: snout-vent 64; tail 53 (83); head 21 (33); snout 6 (9); orbit 3.5 (6); eye to ear 5.5 (9); width of head 12 (19); axilla to groin 25 (39); left forelimb length 17 (27); left fourth finger 4 (6); left hind limb length 24 (38); left fourth toe 6 (9).

The holotype is shown in Fig. 1.

Variation—Males possess 7.9 preanal pores separated in the midline by (usually) a single scale. Snout-vent length of sexually mature males is 50-58 mm. The holotype is the largest female.

The main variation is in coloration and centres around the degree of differentiation of the dorsal region. In an extreme example (N.M.V. D 1689) the dorsal area is pale and unmarked and the flanks, although considerably darker, are still fairly light in colour. In other examples the dorsal area is darker and less clearly differentiated from the flanks. In such specimens the fine reticulate markings may be more numerous. Coloration, however, provides ready identification of most specimens which are similar to the holotype.

Comparisons—*Oedura reticulata* belongs to the *robusta* species group and occupies an intermediate position between *robusta* and *lesueurii*, large and small species respectively. The remaining members of the genus are distinguished by dorsal and ventral scales of approximately equal size. Apart from differences in colour and pattern *reticulata* differ from *robusta* and *lesueurii* in the number and shape of the postanal tubercles. In *reticulata* there is a single tubercle which is spade-shaped or slightly rounded. In *robusta* there are 3-5 postanal tubercles which are

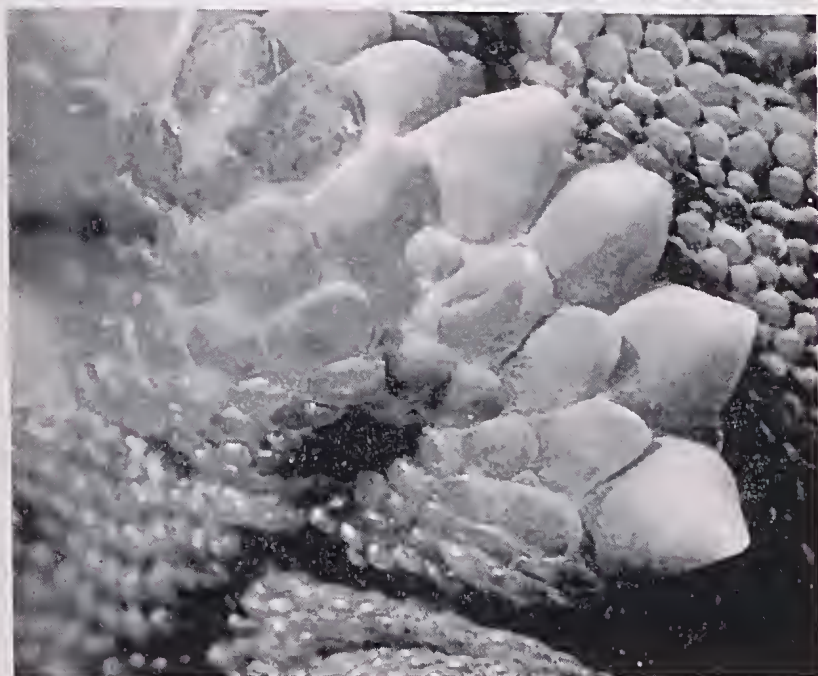
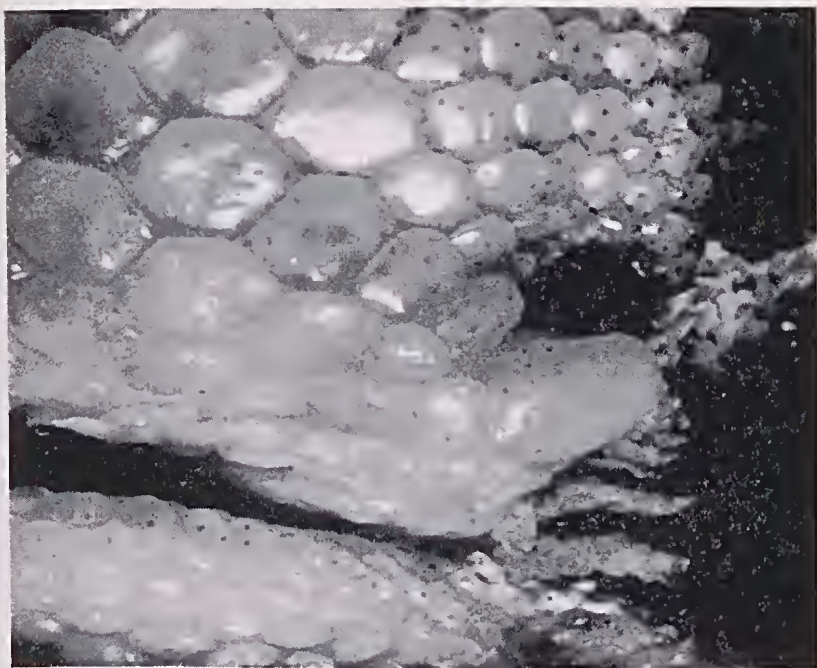


Fig. 2.—The single postanal tubercle of *Oedura reticulata* (above) and the cluster of postanal tubercles of *O. robusta* (below).

typically very pointed (Fig. 2). Western Australian specimens of *lesueurii lesueurii* and *lesueurii rhombifer* possess two, occasionally three, postanal tubercles. In the Eastern States there are three to five postanal tubercles.

REFERENCES

- BUSTARD, H. R. 1966. The *Oedura tryoni* complex: East Australian rock-dwelling geckos. (Reptilia: Gekkonidac). *Bull. Brit. Mus. (Nat. Hist.)*, 14 (1): 1-14.
- 1967. The status of the gekkonid lizard name *Oedura ocellata* Boulenger, 1885. *Herpetologica*, 23: 312-313.
- (in press). The *Oedura marmorata* complex. *Senckenberg. Biol.*
- COGGER, H. G. 1957. Investigations in the gekkonid genus *Oedura* Gray. *Proc. Linn. Soc. N.S.W.*, 82 (2): 167-179.

A NEWLY DISCOVERED BONE-BEARING DEPOSIT IN LABYRINTH CAVE, NEAR AUGUSTA, WESTERN AUSTRALIA

By D. MERRILEES, Western Australian Museum.

Recent discovery of fossil bones and teeth in Labyrinth Cave, which has been visited frequently by speleologists since 1961, shows that significant finds remain to be made in caves and other sites which seem to be well known. Mrs J. W. J. and Mr D. C. Lowry made the discovery while surveying a little-used part of Labyrinth Cave extending approximately north-eastward from the entrance.

Teeth and bones were noticed in a lithified cave earth adhering in patches to the cave wall; one of the teeth was recognized as wombat and another as *Sthenurus*, an extinct member of the kangaroo family. Mr and Mrs Lowry reported their observations to me, and also collected some bones lying loose on the cave floor nearby, two of which proved to represent *Sthenurus*. In February 1969, J. W. J. Lowry, G. W. Kendrick and I visited Labyrinth Cave and spent a day examining and collecting from this part of the cave, now called "Wombat Warren". We believe that the deposits merit more detailed palaeontological study.

The wombat tooth (Western Australian Museum specimen 69.4.4) is an upper or lower molar which could represent the extinct western species, named *Phascolomys hacketti* by L. Glauert in 1910 from Mammoth Cave specimens. The *Sthenurus* tooth (West. Aust. Mus. 69.4.3) is a lower molar either of *S. occidentalis* or (more likely) of *S. brownei*; molar teeth of these two species are very similar, and in fact the two species were regarded as one until recently (Merrilees, 1968a). A bird, not yet identified, but about the size of a swan, is represented by a fragment of coracoid (West. Aust. Mus. 69.4.5). The rear portion of a left lower jaw of a macropod (West. Aust. Mus. 69.4.2), larger than the modern Black-gloved Wallaby, but smaller than the Western Grey Kangaroo, also remains unidentified. The Koala (*Phascolarctos* sp.) is represented by a left lower jaw (West. Aust. Mus. 69.4.1) with a complete row of well-preserved cheek teeth.

These and several other fragmentary specimens (e.g. West. Aust. Mus. 69.4.8, 9) were all recovered from patches of well-cemented deposit adhering to the walls of the cave. In addition, interesting specimens were found on the floor of the cave. A frag-